

10-SEP-1999;	99US-0153070.	Query Match	79.6%;	Score 2064;	DB 21;	Length 425;
13-SEP-1999;	99US-0153758.	Best Local Similarity	94.5%;	Pred. No. 2.7e-175;		
15-SEP-1999;	99US-0154018.	Matches 399;	Conservative	Mismatches 13;	Indels 4;	Gaps 1;
16-SEP-1999;	99US-0154039.					
20-SEP-1999;	99US-0154779.					
22-SEP-1999;	99US-0155139.					
22-SEP-1999;	99US-0155186.					
23-SEP-1999;	99US-0155458.					
24-SEP-1999;	99US-0155659.					
28-SEP-1999;	99US-0156596.					
29-SEP-1999;	99US-0157117.					
04-OCT-1999;	99US-0157753.					
05-OCT-1999;	99US-0157865.					
06-OCT-1999;	99US-0158029.					
07-OCT-1999;	99US-0158232.					
08-OCT-1999;	99US-0158369.					
12-OCT-1999;	99US-0159293.					
13-OCT-1999;	99US-0159294.					
13-OCT-1999;	99US-0159295.					
13-OCT-1999;	99US-0159329.					
14-OCT-1999;	99US-0159330.					
14-OCT-1999;	99US-0159331.					
14-OCT-1999;	99US-0159637.					
14-OCT-1999;	99US-0159638.					
14-OCT-1999;	99US-0159584.					
18-OCT-1999;	99US-0160741.					
21-OCT-1999;	99US-0160767.					
21-OCT-1999;	99US-0160768.					
21-OCT-1999;	99US-0160770.					
21-OCT-1999;	99US-0160814.					
21-OCT-1999;	99US-0160815.					
21-OCT-1999;	99US-0160980.					
22-OCT-1999;	99US-0160981.					
22-OCT-1999;	99US-0160989.					
22-OCT-1999;	99US-0161404.					
25-OCT-1999;	99US-0161405.					
25-OCT-1999;	99US-0161406.					
25-OCT-1999;	99US-0161359.					
26-OCT-1999;	99US-0161360.					
26-OCT-1999;	99US-0161361.					
26-OCT-1999;	99US-0161920.					
28-OCT-1999;	99US-0161992.					
28-OCT-1999;	99US-0161993.					
28-OCT-1999;	99US-0161993.					
29-OCT-1999;	99US-0162142.					
78	MHLSHPNVVRIKGYVEDSVFVHIVMEVCEGGELFDRIVSKGHFSEREAVKLIKILGV 137					
1	MHLSHPNVVRIKGYVEDSVFVHIVMEVCEGGELFDRIVSKGHFSEREAVKLIKILGV 60					
138	VEACHSLGVNHRDLKPNELFDSKDAKLKATDFGLSVFYKQGYLYDVVGSPPYVAPE 197					
61	VEACHSLGVNHRDLKPNELFDSKDAKLKATDFGLSVFYKQGYLYDVVGSPPYVAPE 120					
198	VLKKCYGEIDVWSAGVILYLLSGVPPFWAETSGIFRQILQKLDKSPDPTISEAA 257					
121	VLKKCYGEIDVWSAGVILYLLSGVPPFWAETSGIFRQILQKLDKSPDPTISEGA 180					
258	KDLYIKMLERSPKGISAEALCHPWIVDEQAAPDKPLDPAVLSRLKQFSQWNIKKMAL 317					
181	KDLYIKMLDRSPKGISAEALCHPWIVDEHAAPDKPLDPAVLSRLKQFSQWNIKKMAL 240					
318	RVIARLSEEEGGKELFKMTDNTSGITITFEELKAGLRKRVGSELMESEIKSLMDADI 377					
241	RVIARLSEEEGGKELFKMTDNTSGITITFEELKAGLRKRVGSELMESEIKSLMDADI 300					
378	DNSGTTIDYGEFLAATLHMKMREERELVAAFSDFKDGGGYITIDELQSACTEFGLCDTP 437					
301	DNSGTTIDYGEFLAATLHMKMREERELVAAFSDFKDGGGYITIDELQSACTEFGLCDTP 360					

QY	438	LDDMIKEIDLNDGKIDFSEFTAMMKGKGVSRTMKNLNFNIADAFGVGDG----	EKS 493
Db	361	LDDMIKEIDLNDGKIDFSEFTAMMKGKGVSRTMKNLNFNIADAFGVGDG----	420
QY	494	DD 495	
Db	421	DD 422	
RESULT 5			
AAW93256		standard; Protein; 512 AA.	
ID	AAW93256		
XX	AAW93256;		
AC	AC		
XX	25-AUG-1999	(first entry)	
DT	25-AUG-1999		
XX	Soybean CDPK protein.		
DE	CDPK; calcium dependent protein kinase; tobacco; pathogen; invasion;		
XX	induction; elicitor; plant; disease resistance; parasiticein; soybean;		
KW	elicitin.		
KW			
XX	Glycine max.		
OS			
XX			
PH	Key	Location/Qualifiers	
FT	Region	41...46	
FT	Region	/note= "protein kinase sequence"	
FT	Region	158...163	
FT	Region	/note= "protein kinase sequence"	
FT	Region	198...205	
FT	Region	/note= "protein kinase sequence"	
FT	Binding-site	348...360	
FT	Binding-site	/note= "calcium binding site"	
FT	Binding-site	388...399	
FT	Binding-site	/note= "calcium binding site"	
FT	Binding-site	425...435	
FT	Binding-site	/note= "calcium binding site"	
FT	Binding-site	458...468	
FT	Binding-site	/note= "calcium binding site"	
XX	WO9902655-A1.		
PN	21-JAN-1999.		
XX	07-JUL-1998;	98WO-US14109.	
XX	08-JUL-1997;	97US-0889655.	
XX	(KENT ) UNIV KENTUCKY RES FOUND.		
PA	Chappell J, Lusso MFG;		
PI	WPI; 1999-120859/10.		
XX	New polynucleotides based on calcium dependent protein kinase genes		
XX	- useful to induce disease resistance in plants		
PT	Example 4; Fig 4; 51pp; English.		
XX	This invention describes a novel nucleic acid molecule and its encoded		
PS	protein that are induced upon pathogen invasion or elicitor treatment.		
XX	The products of the invention are functional in plants, plant tissue and		
CC	in plant cells for inducible gene expression and altering the disease		
CC	resistance phenotype of plants. The products of the invention are		
CC	related to calcium dependent protein kinase (CDPK) genes. The invention		
CC	describes the isolation of a novel tobacco CDPK protein fragment and its		
CC	encoding nucleic acid, isolated from a cell suspension culture derived		
CC	from a tobacco cultivar KV14 explant, after growth in the presence of		
CC	the elicitor parasiticein. This sequence represents the soybean CDPK		
CC	protein which is used in the description of the method.		
XX	Sequence 512 AA;		